XM-7527

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model

SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
37.5/75 watts per channel minimum continuous average power into 4 ohms, both channels driven from 20 Hz to 20 kHz with no more than 0.04%* total harmonic distortion per Car Audio Ad Hoc Committee standards.

Other Specifications

Circuit system	Pure Direct Drive SEPP Pulse power supply
Inputs	RCA pin jacks
Outputs	Speaker terminals Through out pin jacks
Speaker impedance	0.5** – 8 Ω (stereo) 1** – 8 Ω (when used as a bridging amplifier)
Maximum outputs	(HI-CURRENT/HI-VOLTAGE) 90/180 W × 2 (at 4 Ω) 180/300 W × 2 (at 4 Ω) 360/600 W × 1 (at 4 Ω)
Rated outputs	(supply voltage at 14.4 V*, 20 Hz – 20 kHz) (HI-CURRENT/HI-VOLTAGE) 37.5/75 W × 2 (0.04 % THD, at 4 Ω) 75/150 W × 2 (0.1 % THD, at 2 Ω) 150/300 W × 1 (0.1 % THD, at 4 Ω) (HI-CURRENT) 150 W × 2 (0.3 % THD, at 1 Ω) 180 W × 2 (0.3 % THD, at 0.5 Ω) 300 W × 1 (0.1 % THD, at 2 Ω) 360 W × 1 (0.3 % THD, at 1 Ω)
Frequency response	5 Hz – 100 kHz (+1 dB)
Harmonic distortion	0.005 % or less (at 1 kHz, 4 Ω*)
Input level adjustment range	0.2 – 4.0 V
High-pass filter	50 – 200 Hz, –12 dB/oct
Low-pass filter	50 – 200 Hz, –12 dB/oct
Low boost and low cut	0 – 10 dB (7 – 40 Hz)
Power requirements	12 V DC car battery (negative ground)
Power supply voltage	10.5 – 16 V
Current drain	at rated output: 23 A (4 Ω HI-VOLTAGE mode) at rated output: 58 A (1 Ω HI-CURRENT mode) Remote input: 1.5 mA
Dimensions	Approx. 322 × 83.5 × 260 (303 with cover) mm (w/h/d) (12 3/4 × 3 3/8 × 10 1/4 in.) not incl. projecting parts and controls
Mass	Approx. 5 kg (13 lb. 4 oz.) not incl. accessories
Supplied accessories	Mounting screws (4) Terminal cover (1) Hexagonal wrench 3 mm (1/8 in.) (1)

* NFB ON
** HI-CURRENT only

Design and specifications are subject to change without notice.

STEREO POWER AMPLIFIER

MICROFILM

SONY®

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Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SECTION 1
SERVICE NOTE

Clearing the Protector During Repairs

• OVER CURRENT : Detects overcurrent during output.
• OFF SET : Detects DC offset at the speaker terminal.

1. Clearing the OVER CURRENT protector

① When the position of the MODE switch (S801/power board) is set to HI-VOLTAGE :
Cut the jumper wire JW065 of the amplifier board.
② When the position of the MODE switch (S801/power board) is set to HI-CURRENT :
Cut the jumper wire JW066 of the amplifier board.

2. Clearing the OFF SET protector

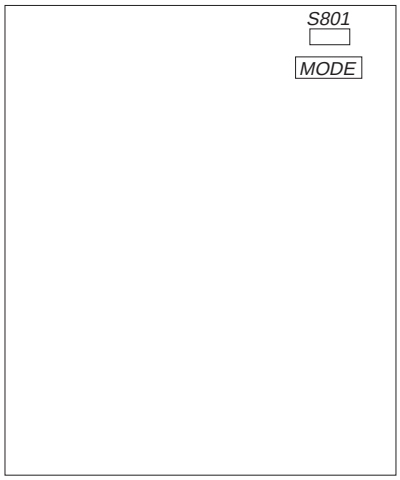
• Cut the jumper wire JW024 of the amplifier board.

3. TEST TONE Function

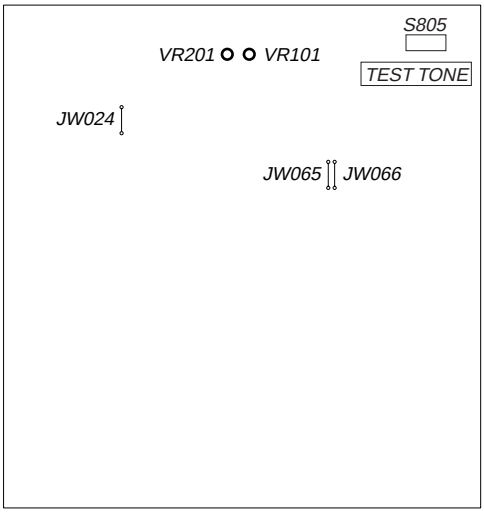
① Press the TEST TONE button (S805/amplifier board) with the power ON. The amplifier is normal if sound is produced from the speaker.
② If no sound
: Problem causer by incorrect connecttion of the power supply system or sperker system.
: The signals input by the RCA cable before the amplifier system are abnormal.

Adjustment Location:

- POWER BOARD - (Component side)



- AMPLIFIER BOARD - (Component side)



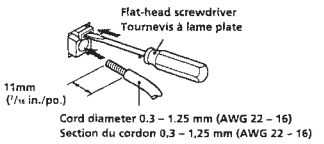
This section is extracted from instruction manual.

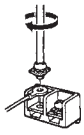
Connections

Caution

- Before making any connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Be sure to use speakers with an adequate power rating. If you use small capacity speakers, they may be damaged.
- Do not connect the ⊖ terminal of the speaker system to the car chassis, and do not connect the ⊖ terminal of the right speaker with that of the left speaker.
- Install the input and output cords away from the power supply lead as running them close together can generate some interference noise.
- This unit is a high powered amplifier. Therefore, it may not perform to its full potential if used with the speaker cords supplied with the car.
- If your car is equipped with a computer system for navigation or some other purpose, do not remove the ground wire from the car battery. If you disconnect the wire, the computer memory may be erased. To avoid short circuits when making connections, disconnect the +12 V power supply lead until all the other leads have been connected.

Make the terminal connections as illustrated below.


Flat-head screwdriver
Tournevis à lame plate
11mm
(7/16 in./po.)
Cord diameter 0.3 – 1.25 mm (AWG 22 – 16)
Section du cordon 0,3 – 1,25 mm (AWG 22 – 16)



Note
When you tighten the screw, be careful not to apply too much torque as doing so may damage the screw.*

** The torque value should be less than 1 N•m.*

Connexions

Attention

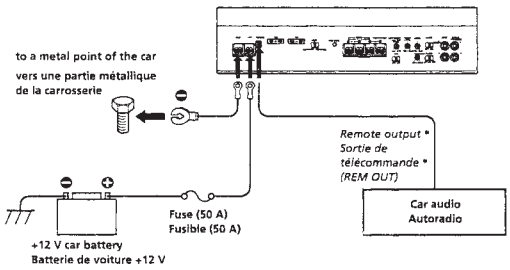
- Avant d'effectuer les connexions, débranchez la borne de masse de la batterie de voiture pour éviter tout court-circuit.
- Veillez à utiliser des haut-parleurs de puissance adéquate. Si vous utilisez des haut-parleurs de faible capacité, ils risquent d'être endommagés.
- Ne raccordez pas la borne ⊖ du système de haut-parleurs à la carrosserie de la voiture ni la borne ⊖ du haut-parleur droit avec celle du haut-parleur gauche.
- Eloignez les câbles d'entrée et de sortie du câble d'alimentation pour éviter les interférences.
- Cet appareil est un amplificateur de haute puissance. Il ne peut donc déployer sa pleine puissance que si les câbles de haut-parleurs de la voiture lui sont raccordés.
- Si votre voiture est équipée d'un système de navigation ou d'un ordinateur de bord, ne retirez pas le fil de terre de la batterie de la voiture, sinon les données mémorisées seront effacées. Pour éviter un court-circuit lorsque vous effectuez les branchements, branchez le câble d'alimentation +12 V après avoir branché tous les autres fils.

Effectuez les connexions de la manière illustrée ci-dessous.

Remarque
Ne serrez pas la vis selon un couple trop fort car vous pourriez l'endommager.*

** La valeur du couple de serrage doit être inférieure à 1 N•m.*

Power Connection Leads
Câbles d'alimentation

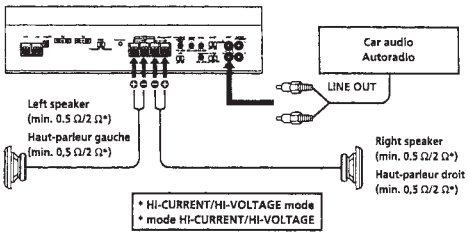


** If you have the factory original or some other car audio without a remote output on the amplifier, connect the remote input terminal (REMOTE) to the accessory power supply.*
** Si vous disposez du modèle d'origine ou d'un autre autoradio dont l'amplificateur ne comporte pas de sortie de télécommande, raccordez la borne d'entrée de télécommande (REMOTE) à la prise d'alimentation accessoires.*

Notes on the power supply
- *Connect the +12 V power supply lead only after all the other leads have been connected.*
- *Be sure to connect the ground lead of the unit securely to a metal point of the car. A loose connection may cause a malfunction of the amplifier.*
- *Be sure to connect the remote control lead of the car audio to the remote terminal.*
- *When using a car audio without a remote output on the amplifier, connect the remote input terminal (REMOTE) to the accessory power supply.*
- *Use the power supply lead with a fuse attached (50 A).*
- *Place the fuse in the power supply lead as close as possible to the car battery.*
- *Make sure that the leads to be connected to the +12 V and GND terminals of this unit respectively must be larger than 8-Gauge (AWG-8) or with the sectional area of more than 8 mm².*
- *When using the optional RC-46 power amplifier connecting cord, consult that manual for proper use.*

Remarques sur l'alimentation électrique
- *Raccordez le câble d'alimentation +12 V uniquement après avoir réalisé toutes les autres connexions.*
- *Raccordez correctement le fil de masse à une partie métallique de la voiture. Une connexion lâche peut provoquer un dysfonctionnement de l'amplificateur.*
- *Veillez à raccorder le fil de télécommande de l'autoradio à la borne de télécommande.*
- *Si vous utilisez un autoradio dont l'amplificateur ne comporte pas de sortie de télécommande, raccordez la borne d'entrée de la télécommande (REMOTE) à la prise d'alimentation accessoires.*
- *Utilisez un câble d'alimentation muni d'un fusible (50 A).*
- *Fixez le câble d'alimentation le plus près possible de la batterie de voiture.*
- *Vous devez raccorder des câbles de calibre supérieurs à 8-Jauge (AWG-8) ou d'une section supérieure à 8 mm² aux bornes +12V et GND.*
- *Lorsque vous utilisez le cordon de raccordement pour amplificateur RC-46 en option, consultez le manuel pour une utilisation correcte.*

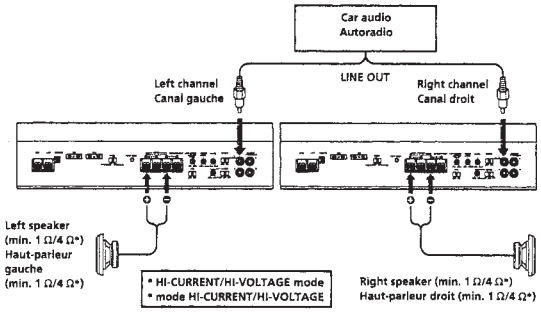
2-Speaker System
Système à 2 haut-parleurs



For details on the settings of switches and controls, refer to "Location and Function of Controls."

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à "Emplacement et fonction des commandes".

As a Monaural Amplifier
Comme amplificateur monaural



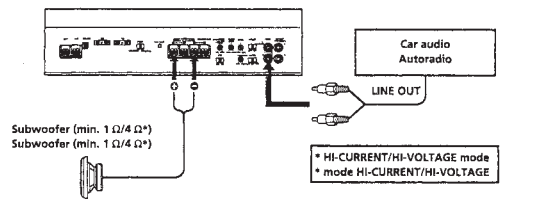
For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note
Make sure that the line output from the car audio is connected to the jack marked "L (MONO)" on the unit.

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à "Emplacement et fonction des commandes".

Remarque
Vérifiez que la sortie de ligne de l'autoradio est raccordée à la prise portant l'indication "L (MONO)" sur l'appareil.

As the Monaural Amplifier for a Subwoofer
Comme amplificateur monaural pour un haut-parleur d'extrêmes graves



For details on the settings of switches and controls, refer to "Location and Function of Controls."

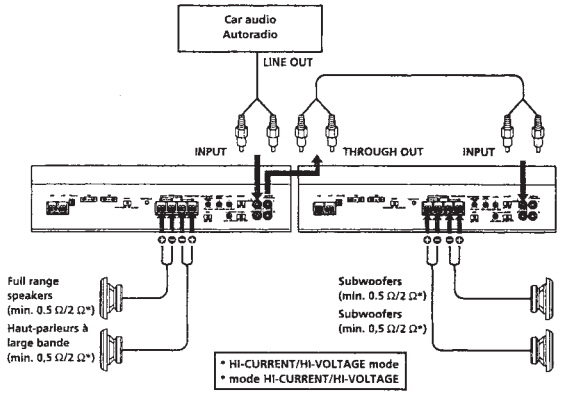
Note
If you wish to use a subwoofer as a monaural speaker, connect the speaker as illustrated above. The output signals to the subwoofer will be the combination of the both right and left output signals.

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à "Emplacement et fonction des commandes".

Remarque
Si vous désirez utiliser un haut-parleur d'extrêmes graves comme haut-parleur monaural, raccordez le haut-parleur comme illustré ci-dessus. Les signaux de sortie vers le haut-parleur d'extrêmes graves seront une combinaison des signaux de sortie droit et gauche.

2-way System
Système 2 voies

Two output channels
Deux canaux de sortie



Use the THROUGH OUT terminal when you install more amplifiers. The signals are output as they were input. (LOW BOOST, HPF, LPF do not work.)

Note

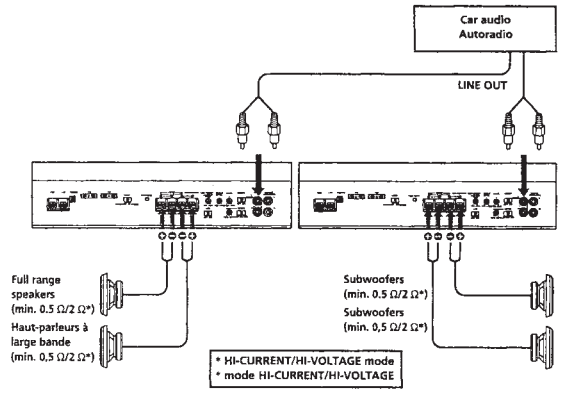
A maximum 3 amplifiers can be connected to the THROUGH OUT terminal. If you connect more than three amplifiers, it may cause problems such as sound dropout.

Utilisez la borne THROUGH OUT lorsque vous installez plusieurs amplificateurs. Les signaux sont sortis comme ils sont entrés. (LOW BOOST, HPF, LPF ne fonctionnent pas.)

Remarque

Vous pouvez raccorder un maximum de 3 amplificateurs à la borne THROUGH OUT. Si vous raccordez plus de trois amplificateurs, cela peut provoquer des problèmes comme des baisses du son.

Four output channels
Quatre canaux de sortie



For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

In this system, the volume of the subwoofers will be controlled by the car audio fader control.

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à "Emplacement et fonction des commandes".

Remarque

Dans ce système, le volume des haut-parleurs d'extrêmes graves est contrôlé par la commande de balance avant/arrière de l'autoradio.

Dual Mode System (With a Bridged Subwoofer)
Double mode de connexion
(avec un haut-parleur d'extrêmes graves en pont)

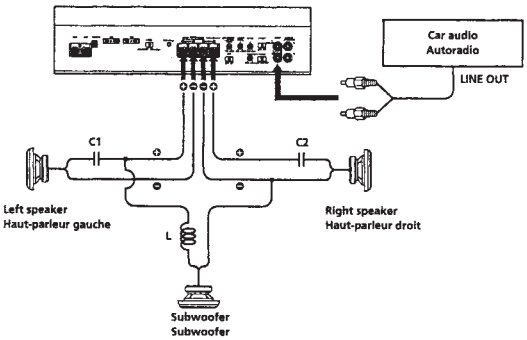


Table of crossover values for 6 dB/octave (4 ohms)

Crossover Frequency unit: Hz	L (coil)* unit: mH	C1/C2 (capacitor)* unit: µF
50	12.7	800
80	8.2	500
100	6.2	400
130	4.7	300
150	4.2	270
200	3.3	200
260	2.4	150
400	1.6	100
600	1.0	68
800	0.8	50
1000	0.6	39

* (not supplied)

Tableau des valeurs de recoupement pour 6 dB/octave (4 ohms)

Fréquence de recoupement unité: Hz	L (bobine)* unité:mH	C1/C2 (condensateur)* unité: µF
50	12,7	800
80	8,2	500
100	6,2	400
130	4,7	300
150	4,2	270
200	3,3	200
260	2,4	150
400	1,6	100
600	1,0	68
800	0,8	50
1000	0,6	39

* (non fournis)

Notes

- *When using passive crossover networks in a multi-speaker system, care must be taken as the speaker system's impedance should not be lower than that of the suitable impedance for this unit.*
- *When you are installing a 12 decibels/octave system in your car, the following points must be considered. In a 12 decibels/octave system where both a choke and capacitor are used in series to form a circuit, a great care must be taken when they are connected. In such a circuit, there is going to be an increase in the current which by-passes the speaker with frequencies at around the crossover frequency. If audio signals are continued to be fed into the crossover frequency area, it may cause the amplifier to become abnormally hot or the fuse will be blown. Also if the speaker is disconnected, a series-resonant circuit will be formed by the choke and the capacitor. In this case, the impedance in the resonance area will decrease dramatically resulting in a short circuit like situation causing a damage to the amplifier. Therefore, make sure that a speaker is connected to such a circuit at all times.*

Remarques

- *Lorsque vous utilisez des circuits de recoupement de fréquence passifs dans un système à plusieurs haut-parleurs, assurez-vous que l'impédance du système n'est pas inférieure à celle prévue pour cet appareil.*
- *Lorsque vous installez un système à 12 décibels/octave dans votre voiture, vous devez respecter les points suivants. Dans un système à 12 décibels/octave où la bobine d'arrêt et le condensateur sont utilisés en série pour former un circuit, vous devez réaliser les branchements avec beaucoup de précaution. Dans ce type de circuit, une augmentation du courant contournant le haut-parleur se produit dans les fréquences se situant autour de la fréquence de coupure. Si des signaux audio continuent d'être fournis dans la zone de la fréquence de recoupement, une surchauffe risque de se produire dans l'amplificateur et le fusible risque de sauter. Si le haut-parleur n'est pas raccordé, un circuit de résonance série sera créé par la bobine et le condensateur. Dans ce cas, l'impédance dans la zone de résonance sera considérablement réduite, et comme dans le cas d'un court-circuit, l'amplificateur peut être endommagé. Par conséquent, veillez à ce qu'un haut-parleur soit toujours raccordé au circuit.*

Precaution

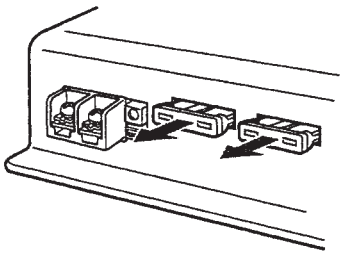
- This unit is designed for negative ground 12 V DC operation only.
- Use speakers with suitable impedance.
  — HI-CURRENT mode: 0.5 to 2 Ω.
  — HI-VOLTAGE mode: 2 to 8 Ω.
- Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers.
- Avoid installing the unit where:
  — it would be subject to high temperature such as from direct sunlight or hot air from the heater
  — it would be exposed to rain or moisture
  — it would be subject to dust or dirt.
- If your car is parked in direct sunlight and there is a considerable rise in temperature inside the car, allow the unit to cool down before use.
- When installing the unit horizontally, be sure not to cover the fins with the floor carpet etc.
- If this unit is placed too close to the car radio, interference may occur. In this case, relocate the amplifier away from the car radio.
- If no power is being supplied to the cassette player or tuner, check the connections.
- This power amplifier employs a protection circuit* to protect the transistors and speakers if the amplifier malfunctions. Do not attempt to test the protection circuits by covering the heat sink or connecting improper loads.
- Do not use the unit on a weak battery as its optimum performance depends on a good power supply.
- For safety reasons, keep your car audio volume moderate so that you can still hear sounds outside your car.

Fuse Replacement

If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.

Warning

- When replacing the fuse, be sure to use one matching the amperage stated above the fuse holder. Never use a fuse with an amperage rating exceeding the one supplied with the unit as this could damage the unit.
- If all two fuses are not used, the performance is limited.



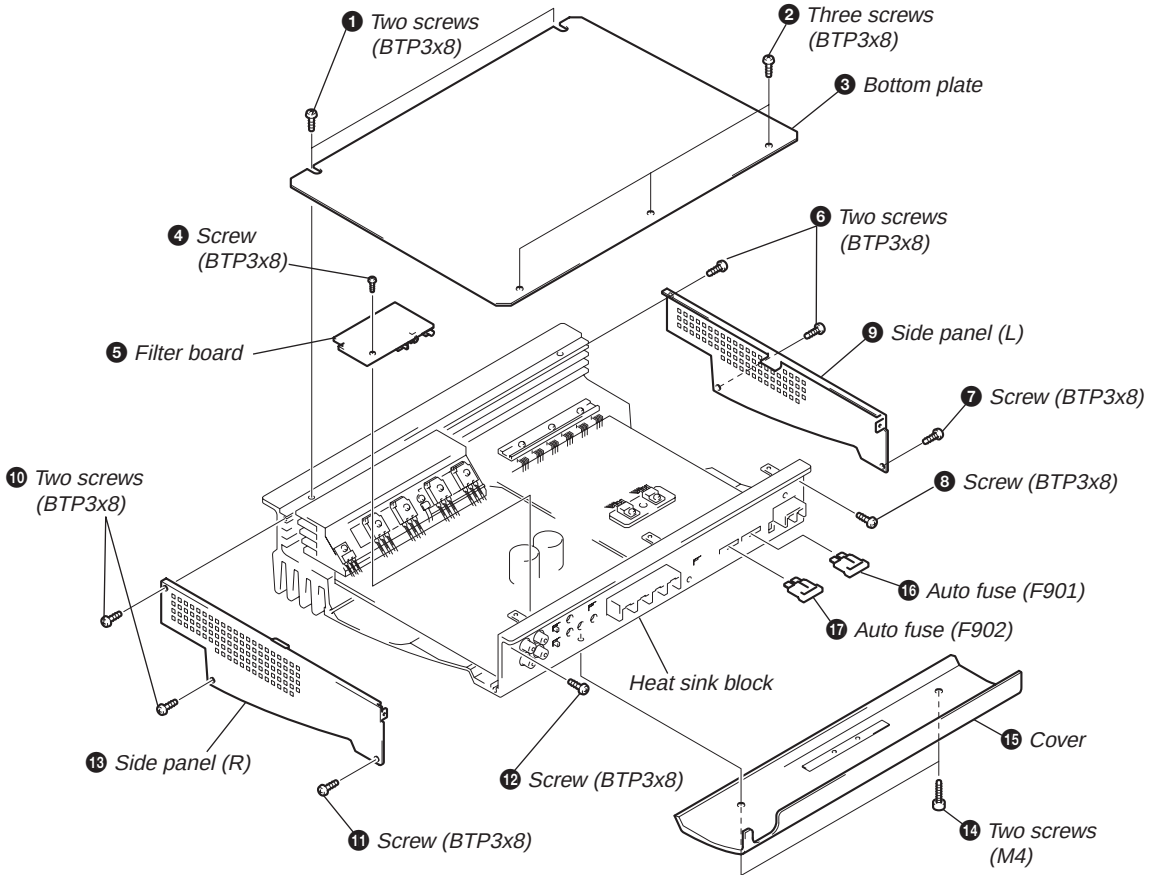
** **Protection circuit***
This amplifier is provided with a protection circuit that operates in the following cases:
— when the unit is overheated
— when a DC current is generated
— when the speaker terminals are short circuited.
The color of the POWER/PROTECTOR indicator will change from green to amber, and the unit will shut down.
If this happens, turn off the connected equipment, take out the cassette tape or disc, and determine the cause of the malfunction. If the amplifier has overheated, wait until the unit cools down before use.

If you have any questions or problems concerning your unit that are not covered in this manual, please consult your nearest Sony dealer.

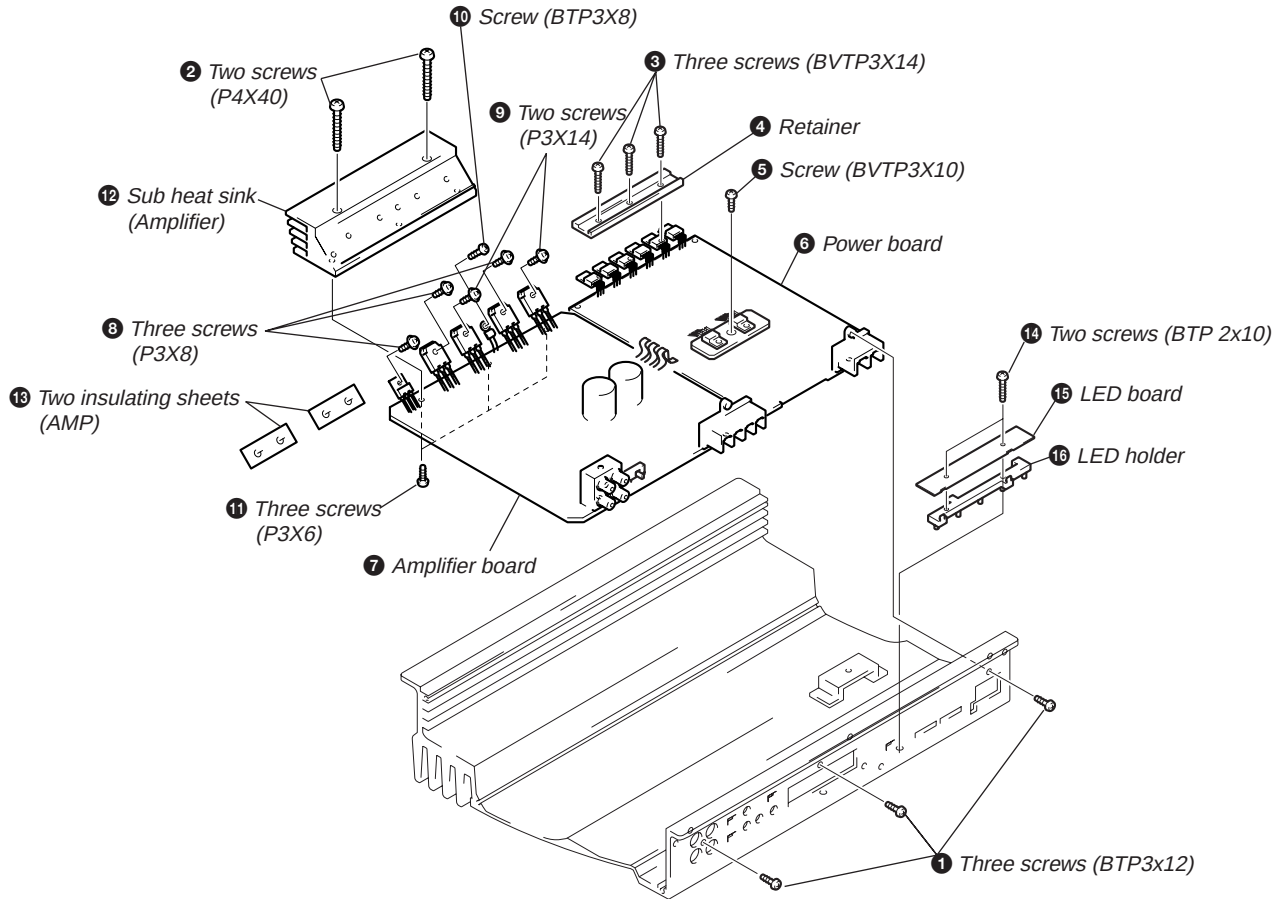
SECTION 3
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

3-1. SIDE PLATE AND BOTTOM PLATE



3-2. AMPLIFIER/POWER BOARD AND LED BOARD



SECTION 4
ELECTRICAL ADJUSTMENTS

Idling Current Adjustment

• Perform adjustments in the HI-VOLTAGE mode.

① Adjustment point
Semi-fixed resistors VR101, VR201 of amplifier board.

② Precautions on adjustments
1. Set the RCA input terminal to open.
2. Apply a voltage of 14.4V between the +12V terminal, REMOTE terminal, and GND terminal.
3. Rotate the above semi-fixed resistors completely in the counterclockwise direction while observing the component side.
4. Check that the voltage at the adjustment point becomes 0 mV in step 2.
5. Fine adjustments may be required according to the characteristics of the MOS-FET used.

• When adjusting the idling current
Rotating the semi-fixed resistor in the clockwise direction:
In creases the idling current
Rotating the semi-fixed resistor in the counterclockwise direc tion:
Decreases the idling current

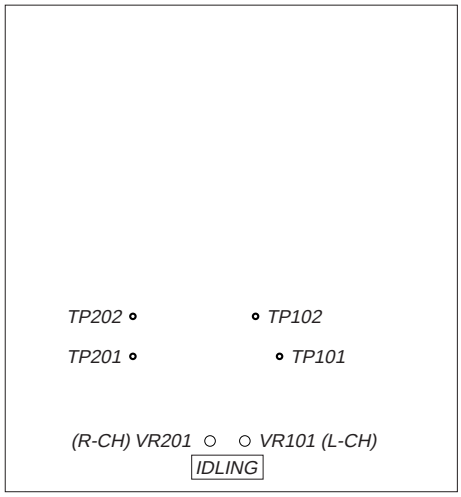
* Take note that rotating excessively in the clockwise direction will increase the idling current suddenly.

③ Approximate adjustment values
Adjust as follows so that the following voltages become 0.4 to 0.5 mV.

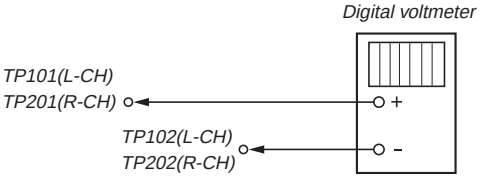
L channel :
Voltage between TP101 and TP102: Use VR101 of the amplifier board
R channel :
Voltage between TP201 and TP202: Use VR201 of the amplifier board

Adjustment Location

- AMPLIFIER BOARD - (Component side)

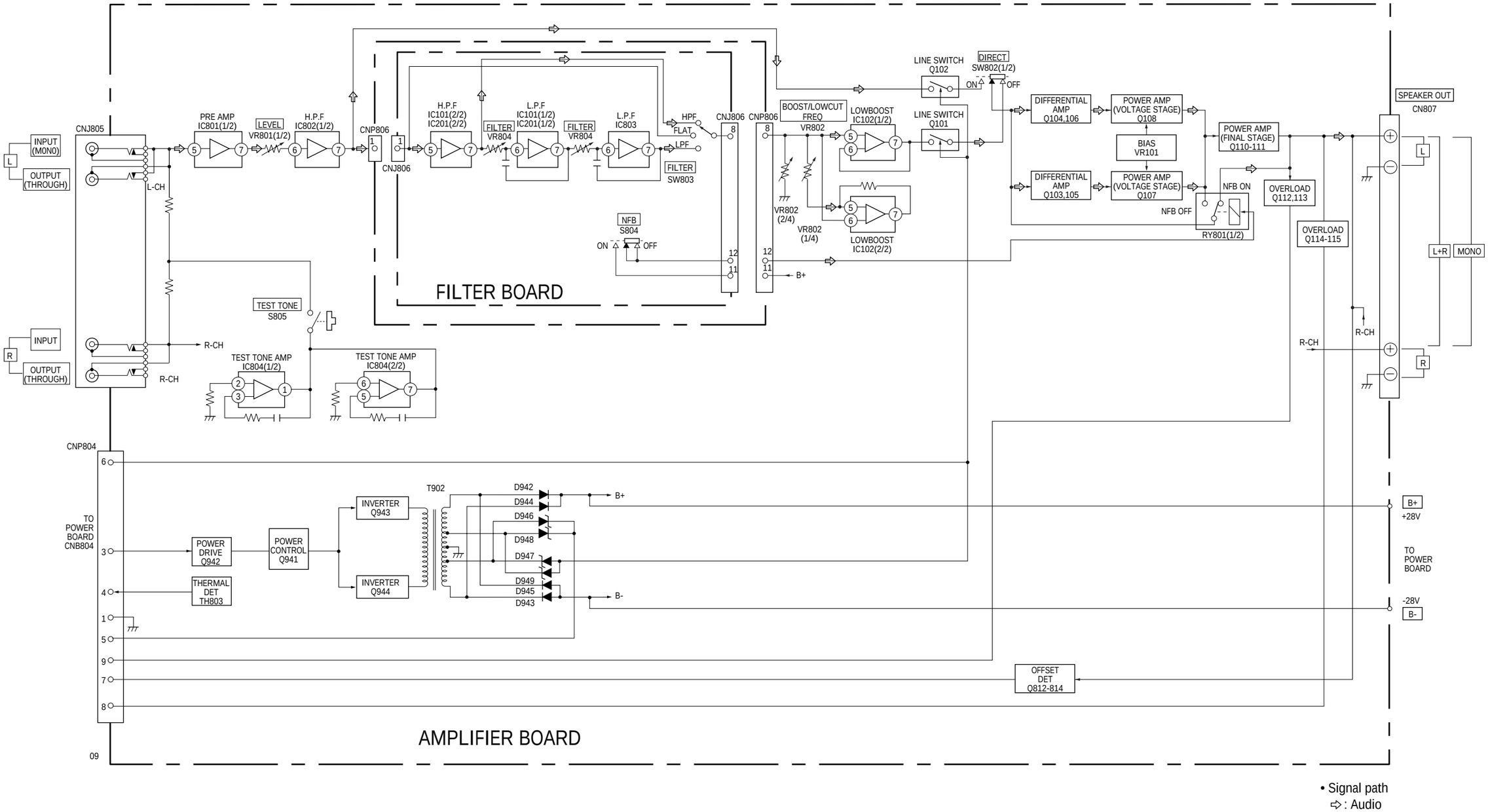


Connection :



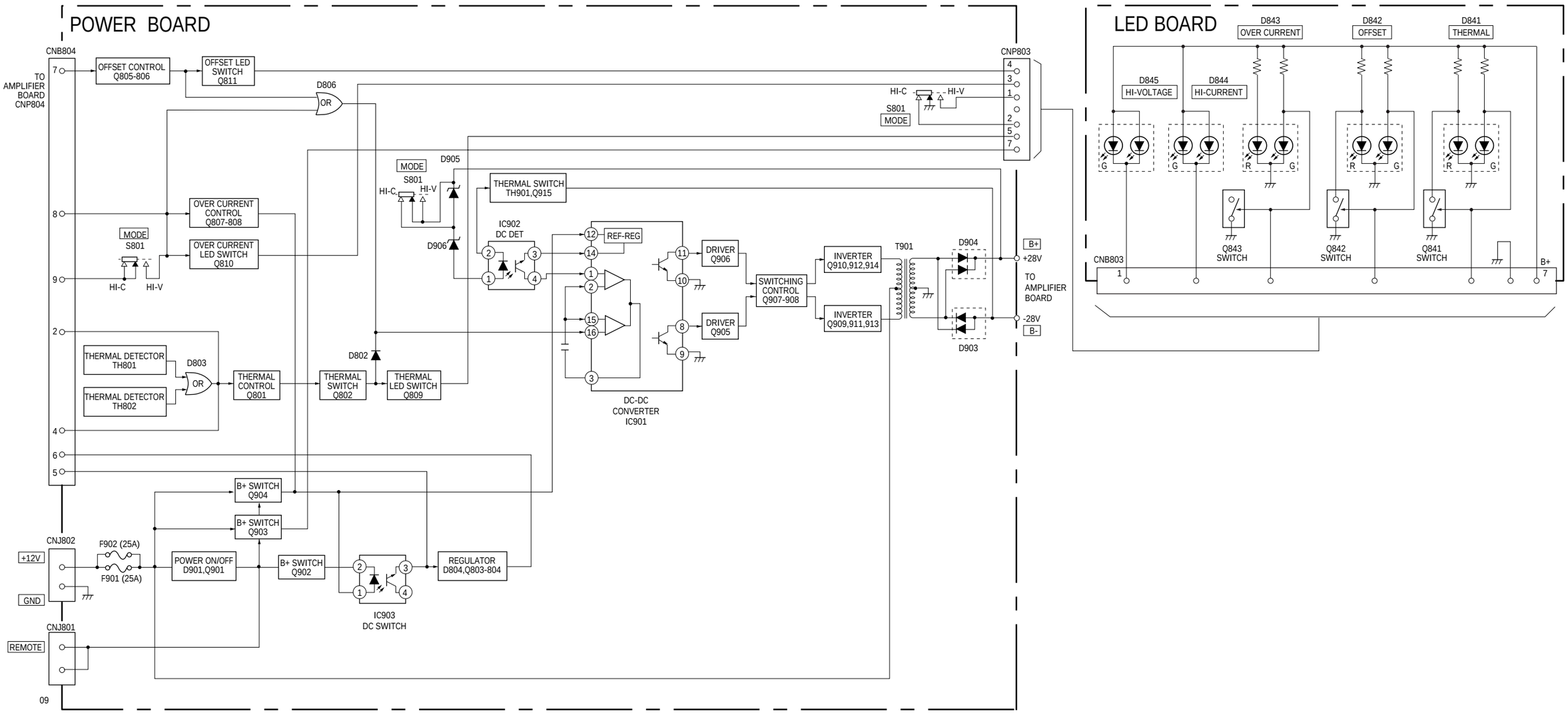
SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM – AMPLIFIER SECTION –



• Signal path
⇨: Audio

5-2. BLOCK DIAGRAM – POWER SECTION –



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.

Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.
- [B +] : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from +12V and REMOTE terminals.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark: POWER ON
  * : Impossible to mersure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : AUDIO

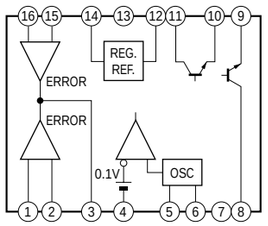
For printed wiring boards.

Note:

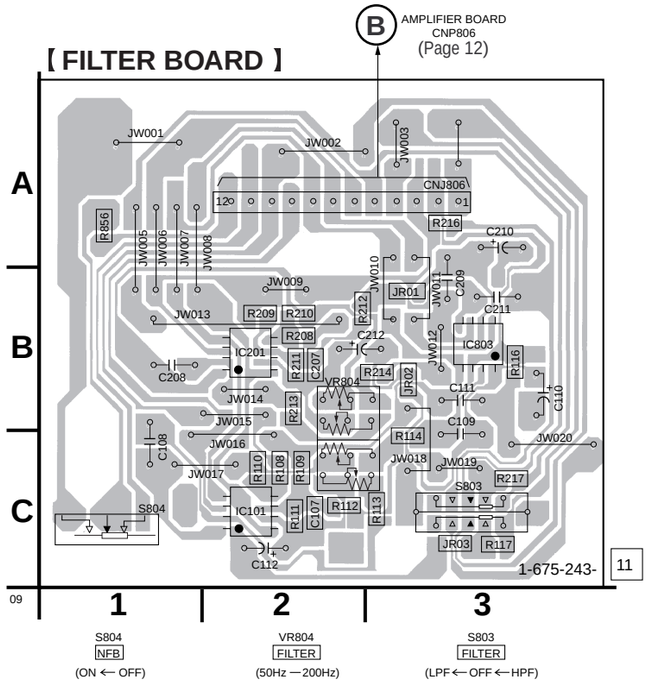
- o——— : parts extracted from the component side.

5-3. IC BLOCK DIAGRAM

• POWER section
IC901 µPC494G2



5-4. PRINTED WIRING BOARD – FILTER/AMPLIFIER SECTION –

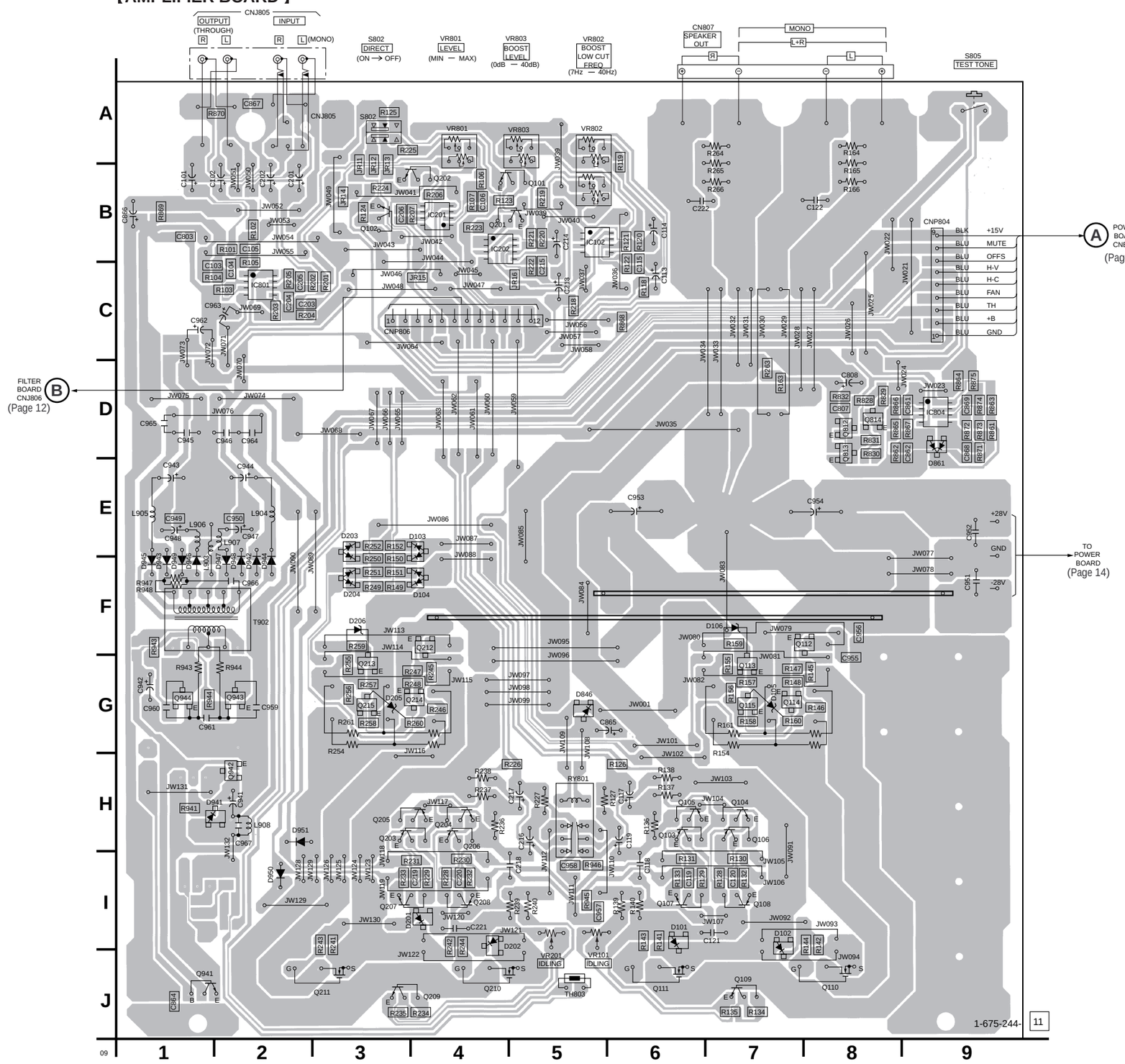


- **Semiconductor Location**

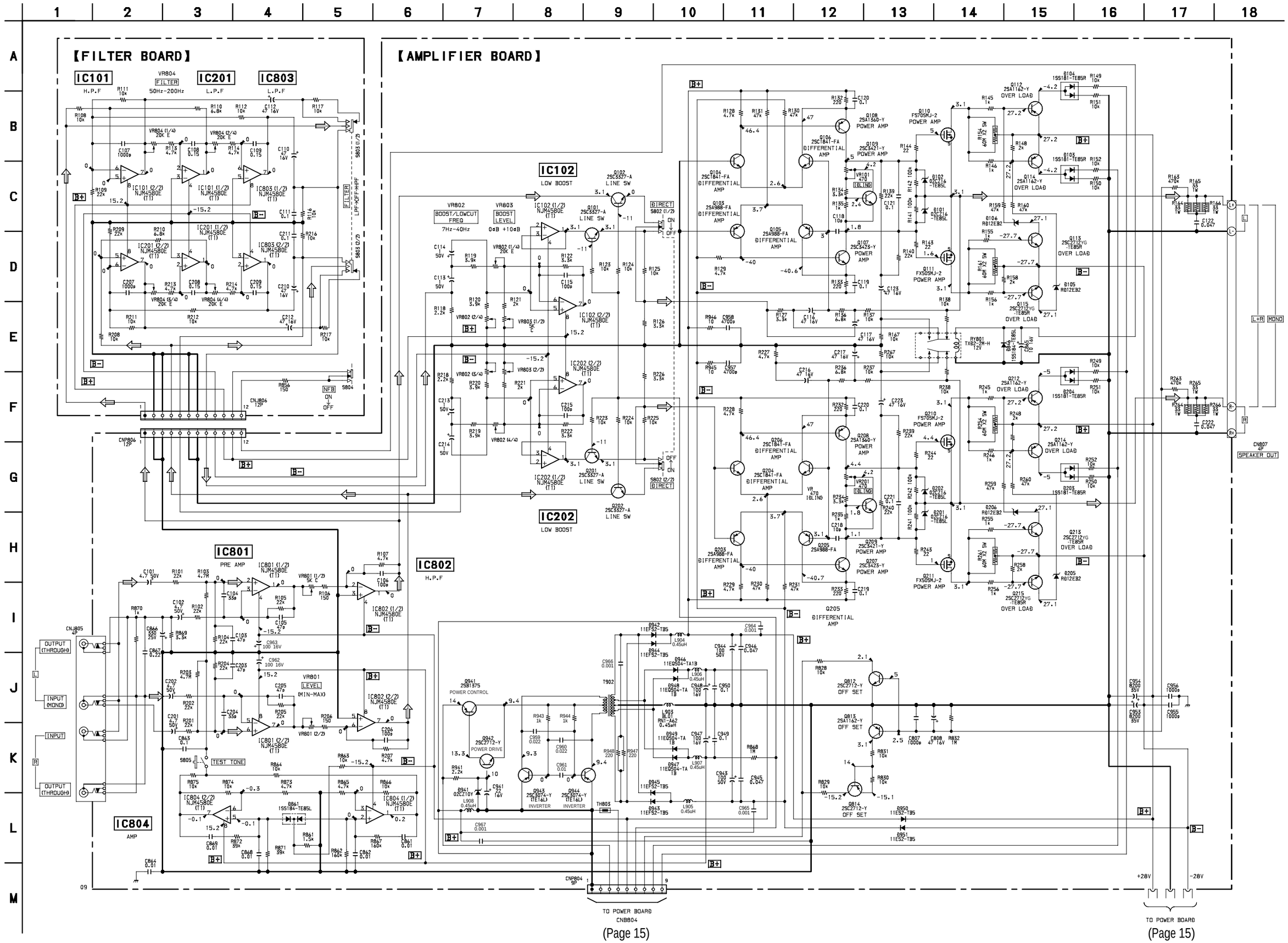
Ref. No.	Location
IC101	C-2
IC201	B-2
IC803	B-3

- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D101	I-6	Q105	H-6
D102	I-7	Q106	H-7
D103	E-4	Q107	I-6
D104	F-4	Q108	I-7
D201	I-4	Q110	J-8
D202	I-4	Q110	J-8
D203	E-3	Q111	J-6
D204	F-3	Q112	F-7
D846	G-5	Q113	F-7
D861	D-9	Q114	G-7
D941	H-1	Q115	G-7
D942	E-2	Q201	B-4
D943	E-1	Q202	A-4
D944	E-2	Q203	H-3
D945	E-1	Q204	H-4
D946	E-1	Q205	H-3
D947	E-2	Q206	H-4
D948	E-2	Q207	I-3
D949	E-1	Q208	I-4
D950	I-2	Q210	J-4
D951	H-2	Q211	J-3
		Q212	F-4
IC102	B-5	Q213	F-3
IC202	B-4	Q214	G-3
IC801	C-2	Q215	G-3
IC802	B-4	Q812	D-8
IC804	D-9	Q813	D-8
		Q814	D-8
Q101	A-5	Q941	J-1
Q102	B-3	Q942	H-2
Q103	H-6	Q943	G-2
Q104	H-7	Q944	G-1

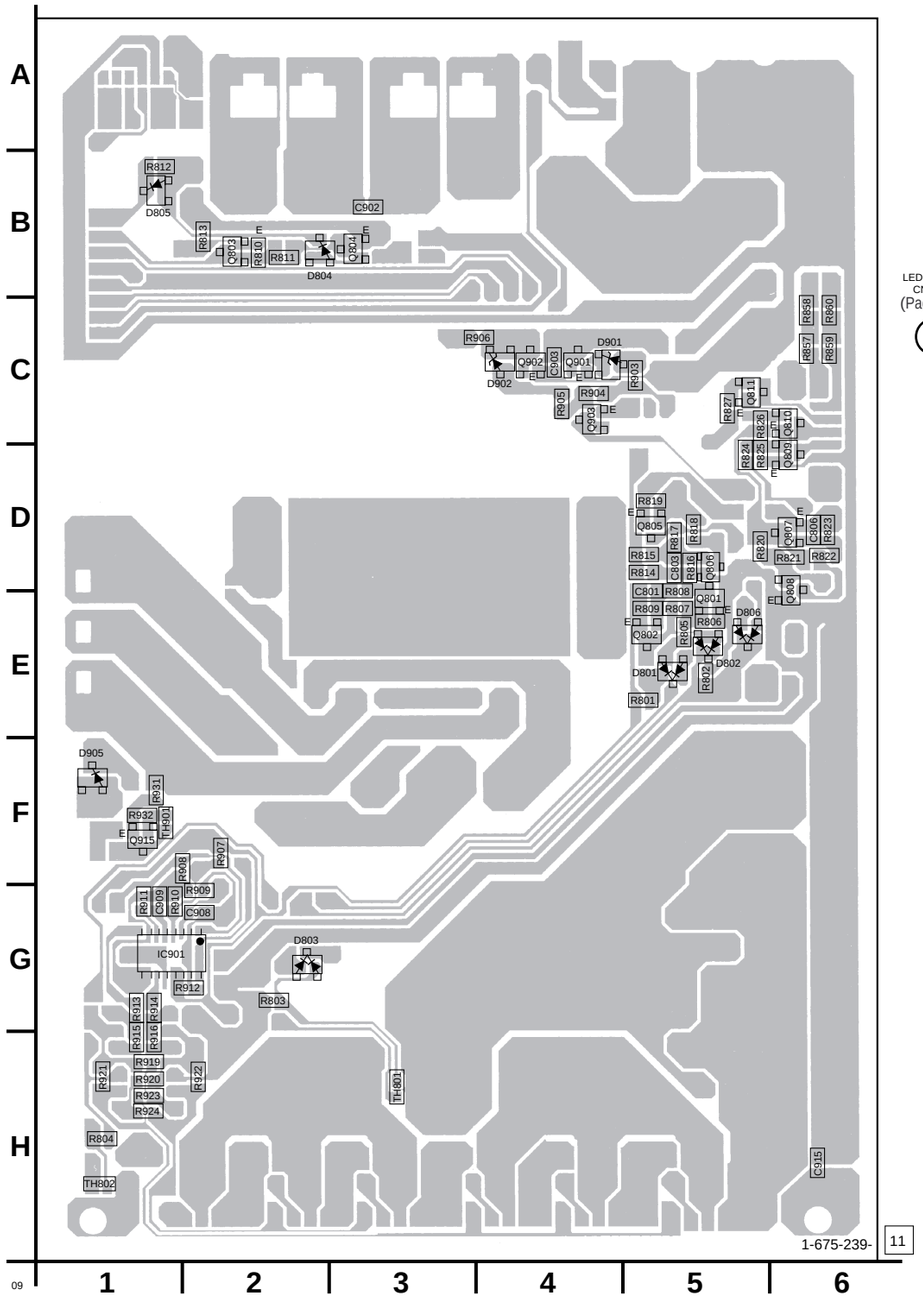


5-5. SCHEMATIC DIAGRAM – FILTER/AMPLIFIER SECTION – • See page 11 for IC Block Diagram.

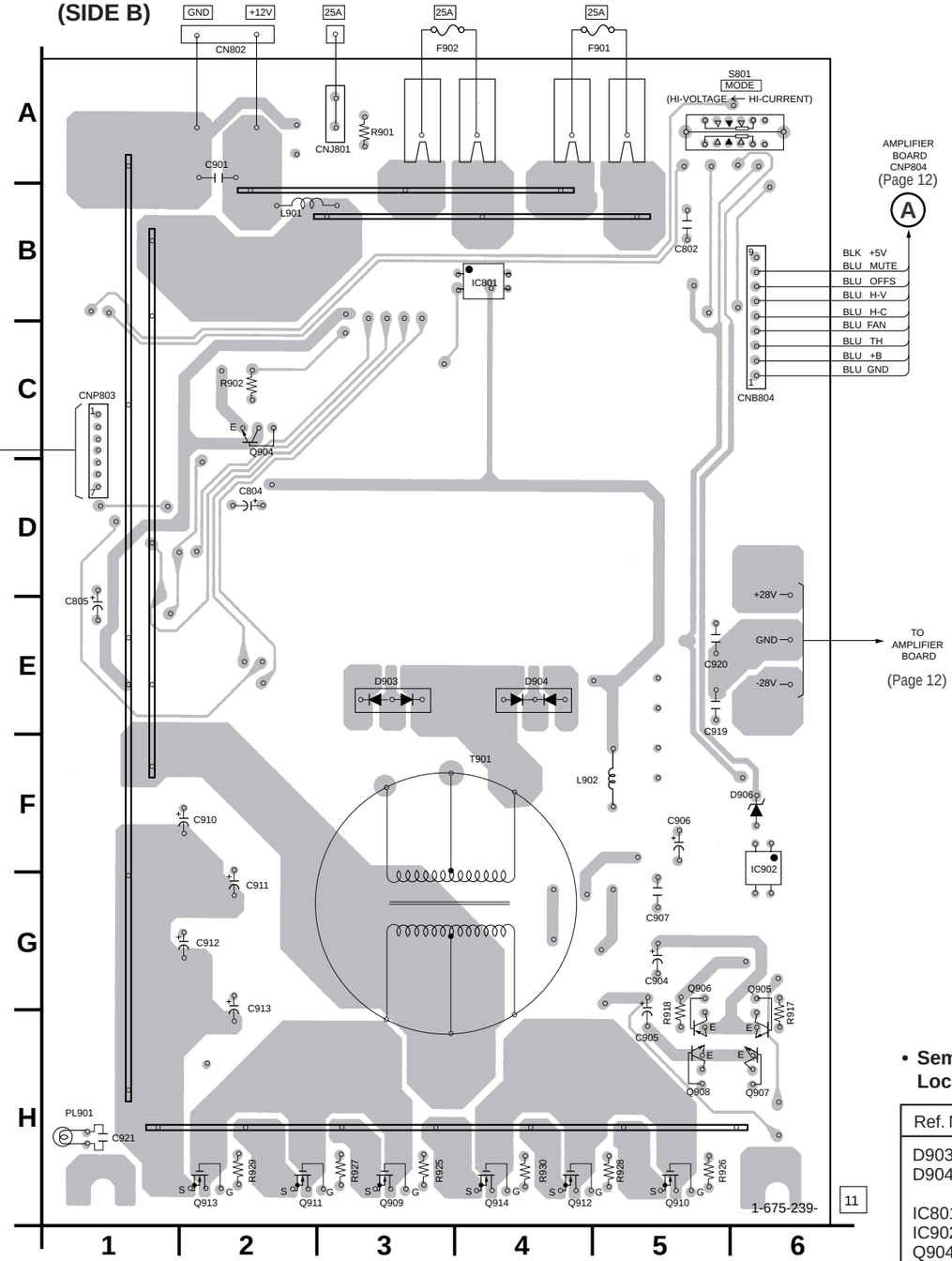


5-6. PRINTED WIRING BOARD – POWER SECTION –

【POWER BOARD】
(SIDE A)



【POWER BOARD】
(SIDE B)



- **Semiconductor Location**

Ref. No.	Location
D801	E-5
D802	E-5
D803	G-2
D804	B-2
D805	B-1
D806	E-5
D901	C-4
D902	C-4
D905	F-1
D906	F-1
IC901	G-1
IC903	B-3
Q801	E-5
Q802	E-5
Q803	B-2
Q804	B-3
Q805	D-5
Q806	D-5
Q807	D-6
Q808	D-6
Q809	D-6
Q810	C-6
Q811	C-5
Q901	C-4
Q902	C-4
Q903	C-4

- **Semiconductor Location**

Ref. No.	Location
D903	E-4
D904	E-3
IC801	B-3
IC902	F-1
Q904	C-5
Q905	G-1
Q906	G-1
Q907	H-1
Q908	H-1
Q909	H-4
Q910	H-2
Q911	H-4
Q912	H-2
Q913	H-5
Q914	H-3
Q915	F-1

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5-7. SCHEMATIC DIAGRAM/PRINTED WIRING BOARD – LED/POWER SECTION – • See page 11 for IC Block Diagram.

【LED BOARD】

【POWER BOARD】

【LED BOARD】

POWER BOARD CNP803 (Page 14)

• **Semiconductor Location**

Ref. No.	Location
D841	A-1
D842	A-2
D843	A-3
D844	A-5
D845	A-4
Q841	A-1
Q842	A-2
Q843	A-3

(Page 13)
TO AMPLIFIER BOARD
CNP804

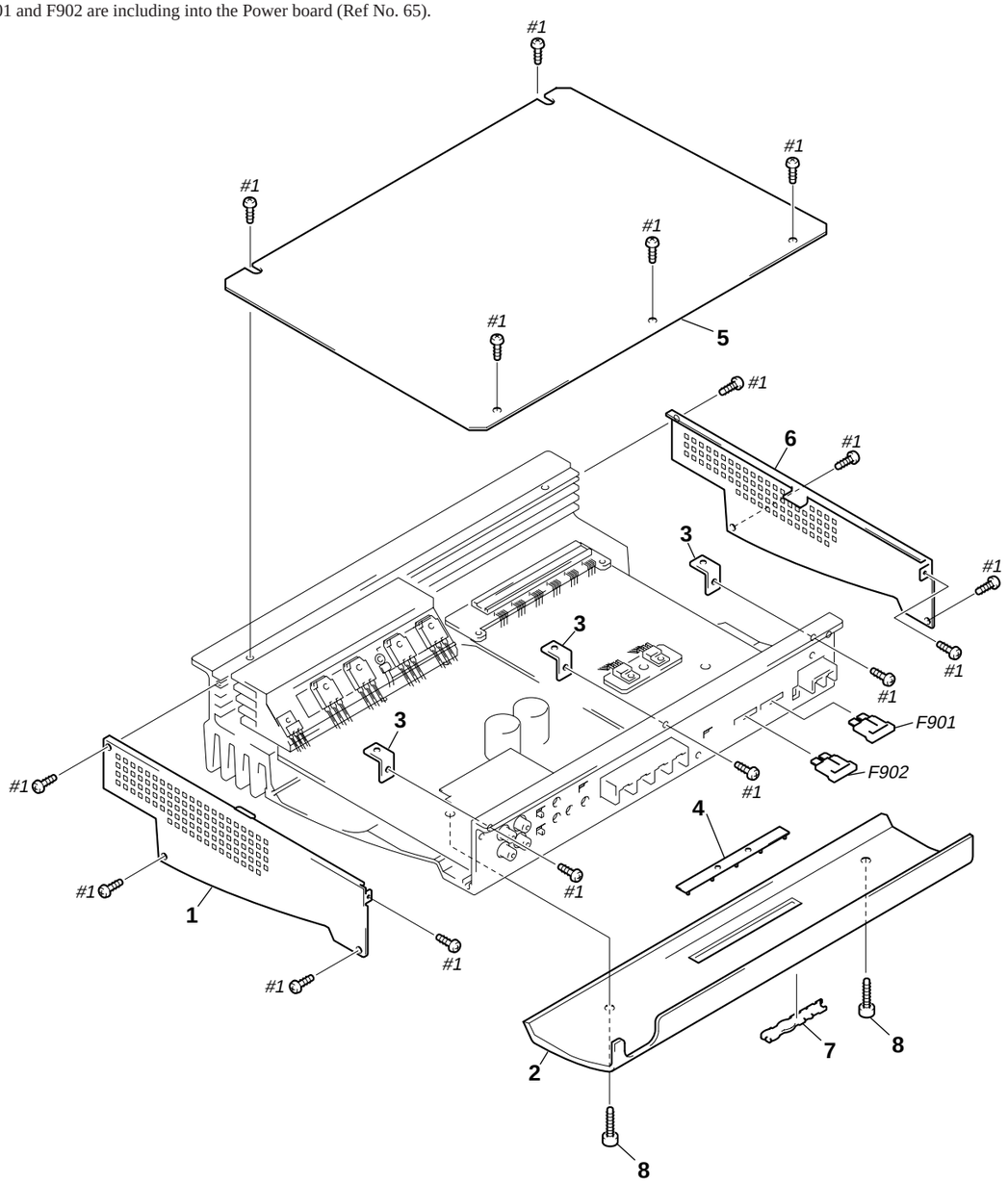
(Page 13)
TO AMPLIFIER BOARD

SECTION 6
EXPLODED VIEWS

NOTE:
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  CND : Canadian model

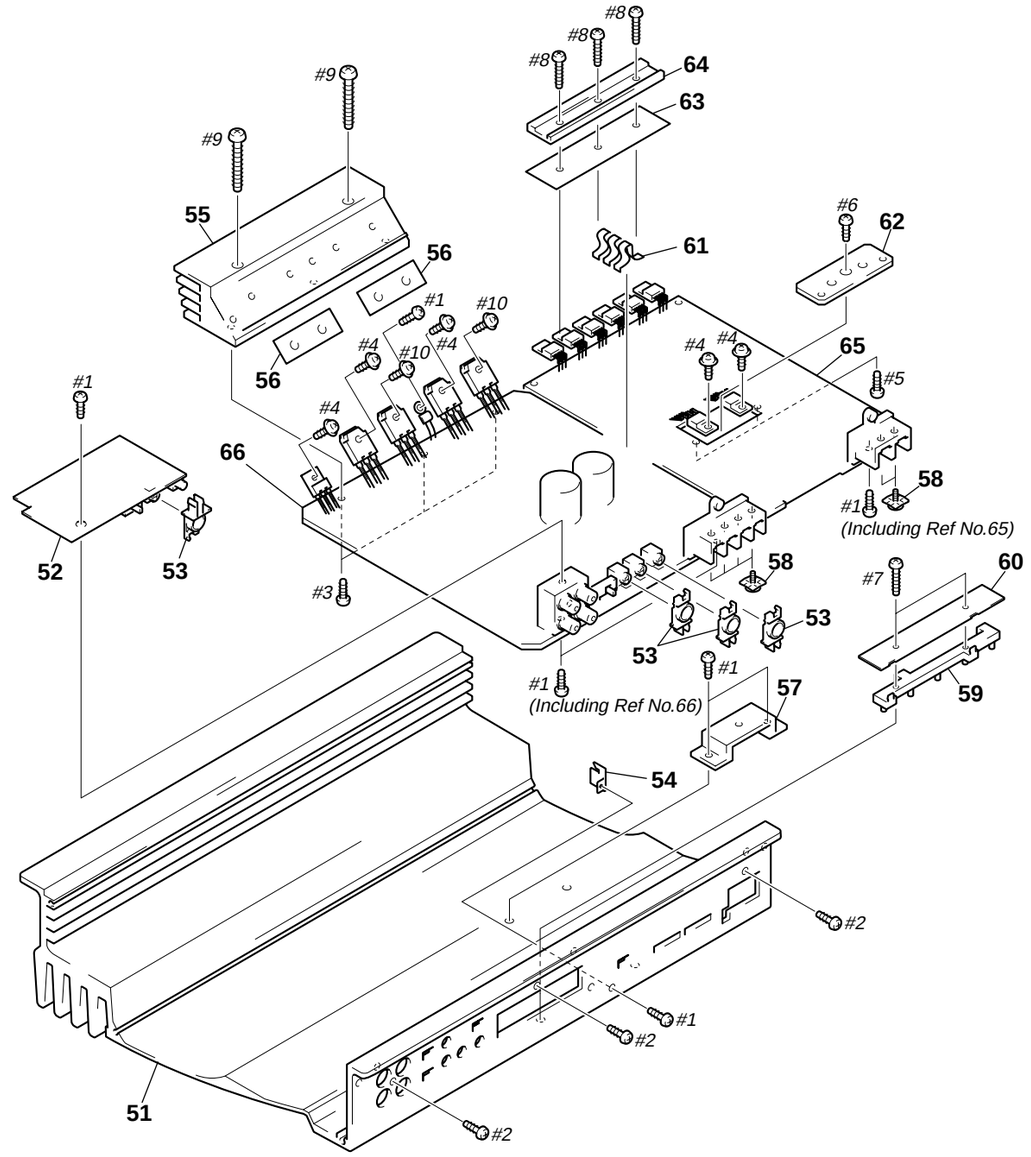
6-1. PLATE AND COVER SECTION

- F901 and F902 are including into the Power board (Ref No. 65).



Ref. No.	Part No.	Description	Remark
* 1	3-039-168-01	PANEL (R), SIDE	
* 2	3-039-174-01	HEAT SINK (COVER)	
* 3	3-039-173-01	PLATE (BKT), BOTTOM	
* 4	3-039-170-01	LENS(COVER)	
* 5	3-039-169-01	PLATE, BOTTOM	
* 6	3-039-167-01	PANEL (L), SIDE	
7	3-704-177-11	EMBLEM (No. 7), SONY	
8	3-040-933-01	BOLT, M4 HEXAGON HOLE	
F901	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE) (25A)	
F902	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE) (25A)	

6-2. BOARD AND HEAT SINK SECTION



Ref. No.	Part No.	Description	Remark
* 51	3-039-175-01	HEAT SINK (US,CND)	
* 51	3-039-175-11	HEAT SINK (AEP,UK,E)	
* 52	1-675-243-11	FILTER BOARD	
* 53	3-039-172-01	HOLDER, VOL	
* 54	3-039-200-01	BRACKET (PWB)	
* 55	3-039-177-01	HEAT SINK (AMPLIFIER), SUB	
* 56	3-039-184-01	SHEET (AMP), INSULATING	
* 57	3-039-178-01	HEAT SINK (RECTIFIER), SUB	
58	3-912-431-01	SCREW (P)	
59	3-039-171-01	HOLDER, LED	
* 60	1-675-242-11	LED BOARD	
* 61	3-039-180-01	BAR(PC-PC), BUS	
* 62	3-039-179-01	HEAT SINK, SPACER	
* 63	3-039-183-01	SHEET (POWER), INSULATING	
* 64	3-033-321-01	RETAINER	
* 65	A-3317-926-A	POWER BOARD, COMPLETE	
* 66	A-3317-927-A	AMPLIFIER BOARD, COMPLETE	

SECTION 7
ELECTRICAL PARTS LIST

AMPLIFIER

Note:

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: µ , for example:
  uA...: µ A..., uPA...: µ PA..., uPB...: µ PB..., uPC...: µ PC..., uPD...: µ PD...
- CAPACITORS
  uF : µ F
- COILS
  uH : µ H
- Abbreviation
  CND : Canadian model

Ref. No.	Part No.	Description			Remark
*	A-3317-927-A	AMPLIFIER BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-126-047-81	ELECT	4.7uF	20%	50V
C102	1-126-047-81	ELECT	4.7uF	20%	50V
C103	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C104	1-163-169-00	CERAMIC CHIP	33PF	5%	50V
C105	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C106	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C113	1-126-044-11	ELECT	1uF	20%	50V
C114	1-126-044-11	ELECT	1uF	20%	50V
C115	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C116	1-126-008-51	ELECT	47uF	20%	16V
C117	1-126-008-51	ELECT	47uF	20%	16V
C118	1-102-508-11	CERAMIC	10PF	0.5PF	50V
C119	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C120	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C121	1-136-165-00	FILM	0.1uF	5%	50V
C122	1-136-161-00	FILM	0.047uF	5%	50V
C123	1-126-008-51	ELECT	47uF	20%	16V
C201	1-126-047-81	ELECT	4.7uF	20%	50V
C202	1-126-047-81	ELECT	4.7uF	20%	50V
C203	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C204	1-163-169-00	CERAMIC CHIP	33PF	5%	50V
C205	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C206	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C213	1-126-044-11	ELECT	1uF	20%	50V
C214	1-126-044-11	ELECT	1uF	20%	50V
C215	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C216	1-126-008-51	ELECT	47uF	20%	16V
C217	1-126-008-51	ELECT	47uF	20%	16V
C218	1-102-508-11	CERAMIC	10PF	0.5PF	50V
C219	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C220	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C221	1-136-165-00	FILM	0.1uF	5%	50V
C222	1-136-161-00	FILM	0.047uF	5%	50V
C223	1-126-008-51	ELECT	47uF	20%	16V
C807	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C808	1-126-008-51	ELECT	47uF	20%	16V
C861	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C862	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C863	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C864	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C865	1-126-157-11	ELECT	10uF	20%	16V
C866	1-126-025-11	ELECT	330uF	20%	25V
C867	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C868	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C869	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C941	1-126-006-11	ELECT	22uF	20%	16V
C942	1-124-997-11	ELECT	470uF	20%	10V
C943	1-126-052-11	ELECT	100uF	20%	50V
C944	1-126-052-11	ELECT	100uF	20%	50V
C945	1-136-161-00	FILM	0.047uF	5%	50V
C946	1-136-161-00	FILM	0.047uF	5%	50V
C947	1-126-009-81	ELECT	100uF	20%	16V
C948	1-126-009-81	ELECT	100uF	20%	16V
C949	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C950	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C953	1-131-730-11	ELECT	8200uF		35V
C954	1-131-730-11	ELECT	8200uF		35V
C955	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C956	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C957	1-163-029-11	CERAMIC CHIP	0.0047uF		50V
C958	1-163-029-11	CERAMIC CHIP	0.0047uF		50V
C959	1-163-037-91	CERAMIC CHIP	0.022uF	10%	50V
C960	1-163-037-91	CERAMIC CHIP	0.022uF	10%	50V
C961	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C962	1-126-009-81	ELECT	100uF	20%	16V
C963	1-126-009-81	ELECT	100uF	20%	16V
C964	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C965	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C966	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C967	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
		< CONNECTOR >			
CN807	1-694-512-11	TABLE, TERMINAL (4P)			
CN807	1-694-619-11	TERMINAL BOARD 4P (SPEAKER OUT)			
		< JACK >			
CNJ805	1-779-078-51	JACK, PIN 4P (INPUT(MONO), OUTPUT(THROUGH))			
		< CONNECTOR >			
* CNP804	1-564-512-11	PLUG, CONNECTOR 9P			
CNP806	1-793-623-11	CONNECTOR, BOARD TO BOARD 12P			

AMPLIFIER

Ref. No.	Part No.	Description	Remark
		< DIODE >	
D101	8-719-025-50	DIODE 02CZ16-TE85L	
D102	8-719-025-50	DIODE 02CZ16-TE85L	
D103	8-719-820-05	DIODE 1SS181-TE85R	
D104	8-719-820-05	DIODE 1SS181-TE85R	
D105	8-719-100-65	DIODE RD12EB2	
D106	8-719-100-65	DIODE RD12EB2	
D201	8-719-025-50	DIODE 02CZ16-TE85L	
D202	8-719-025-50	DIODE 02CZ16-TE85L	
D203	8-719-820-05	DIODE 1SS181-TE85R	
D204	8-719-820-05	DIODE 1SS181-TE85R	
D205	8-719-100-65	DIODE RD12EB2	
D206	8-719-100-65	DIODE RD12EB2	
D846	8-719-801-78	DIODE 1SS184-TE85L	
D861	8-719-801-78	DIODE 1SS184-TE85L	
D941	8-719-018-77	DIODE 02CZ10Y	
D942	8-719-987-67	DIODE 11EFS2-TB5	
D943	8-719-987-67	DIODE 11EFS2-TB5	
D944	8-719-987-67	DIODE 11EFS2-TB5	
D945	8-719-987-67	DIODE 11EFS2-TB5	
D946	8-719-210-21	DIODE 11EQS04-TA1B	
D947	8-719-210-21	DIODE 11EQS04-TA1B	
D948	8-719-210-21	DIODE 11EQS04-TA1B	
D949	8-719-210-21	DIODE 11EQS04-TA1B	
D950	8-719-200-82	DIODE 11ES2-TB5	
D951	8-719-200-82	DIODE 11ES2-TB5	
		< IC >	
IC102	8-759-711-82	IC NJM4580E(T1)	
IC202	8-759-711-82	IC NJM4580E(T1)	
IC801	8-759-711-82	IC NJM4580E(T1)	
IC802	8-759-711-82	IC NJM4580E(T1)	
IC804	8-759-711-82	IC NJM4580E(T1)	
		< COIL >	
L903	1-410-396-71	INDUCTOR 0.45uH	
L904	1-410-396-71	INDUCTOR 0.45uH	
L905	1-410-396-71	INDUCTOR 0.45uH	
L906	1-410-396-71	INDUCTOR 0.45uH	
L907	1-410-396-71	INDUCTOR 0.45uH	
L908	1-410-396-71	INDUCTOR 0.45uH	
		< TRANSISTOR >	
Q101	8-729-203-48	TRANSISTOR 2SC3327-A	
Q102	8-729-203-48	TRANSISTOR 2SC3327-A	
Q103	8-729-140-82	TRANSISTOR 2SA988-FA	
Q104	8-729-184-53	TRANSISTOR 2SC1841-FA	
Q105	8-729-140-82	TRANSISTOR 2SA988-FA	
Q106	8-729-184-53	TRANSISTOR 2SC1841-FA	
Q107	8-729-203-45	TRANSISTOR 2SC3423-Y	
Q108	8-729-209-18	TRANSISTOR 2SA1360-Y	
Q109	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q110	8-729-049-52	TRANSISTOR FS70SMJ-2	
Q111	8-729-049-53	TRANSISTOR FX50SMJ-2	
Q112	8-729-216-21	TRANSISTOR 2SA1162-Y	
Q113	8-729-230-51	TRANSISTOR 2SC2712YG-TE85R	
Q114	8-729-216-21	TRANSISTOR 2SA1162-Y	
Q115	8-729-230-51	TRANSISTOR 2SC2712YG-TE85R	

Ref. No.	Part No.	Description	Remark
Q201	8-729-203-48	TRANSISTOR 2SC3327-A	
Q202	8-729-203-48	TRANSISTOR 2SC3327-A	
Q203	8-729-140-82	TRANSISTOR 2SA988-FA	
Q204	8-729-184-53	TRANSISTOR 2SC1841-FA	
Q205	8-729-140-82	TRANSISTOR 2SA988-FA	
Q206	8-729-184-53	TRANSISTOR 2SC1841-FA	
Q207	8-729-203-45	TRANSISTOR 2SC3423-Y	
Q208	8-729-209-18	TRANSISTOR 2SA1360-Y	
Q209	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q210	8-729-049-52	TRANSISTOR FS70SMJ-2	
Q211	8-729-049-53	TRANSISTOR FX50SMJ-2	
Q212	8-729-216-21	TRANSISTOR 2SA1162-Y	
Q213	8-729-230-51	TRANSISTOR 2SC2712YG-TE85R	
Q214	8-729-216-21	TRANSISTOR 2SA1162-Y	
Q215	8-729-230-51	TRANSISTOR 2SC2712YG-TE85R	
Q812	8-729-230-49	TRANSISTOR 2SC2712-Y	
Q813	8-729-216-21	TRANSISTOR 2SA1162-Y	
Q814	8-729-230-49	TRANSISTOR 2SC2712-Y	
Q941	8-729-141-83	TRANSISTOR 2SB1375	
Q942	8-729-230-49	TRANSISTOR 2SC2712-Y	
Q943	8-729-205-88	TRANSISTOR 2SC3074-Y(TE16L)	
Q944	8-729-205-88	TRANSISTOR 2SC3074-Y(TE16L)	
		< RESISTOR >	
R101	1-208-518-61	RES,CHIP 22K 2% 1/10W	
R102	1-208-518-61	RES,CHIP 22K 2% 1/10W	
R103	1-208-291-11	RES,CHIP 4.7M 5% 1/10W	
R104	1-208-518-61	RES,CHIP 22K 2% 1/10W	
R105	1-208-518-61	RES,CHIP 22K 2% 1/10W	
R106	1-216-631-11	METAL CHIP 150 0.5% 1/10W	
R107	1-208-453-61	RES,CHIP 4.7K 2% 1/10W	
R118	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
R119	1-216-665-11	METAL CHIP 3.9K 0.5% 1/10W	
R120	1-216-665-11	METAL CHIP 3.9K 0.5% 1/10W	
R121	1-208-789-11	RES,CHIP 2K 2% 1/10W	
R122	1-208-449-61	RES,CHIP 3.3K 2% 1/10W	
R123	1-208-510-61	RES,CHIP 10K 2% 1/8W	
R124	1-208-510-61	RES,CHIP 10K 2% 1/8W	
R125	1-208-462-61	RES,CHIP 10K 2% 1/10W	
R126	1-208-449-61	RES,CHIP 3.3K 2% 1/10W	
R127	1-249-935-11	CARBON 3.3K 5% 1/4W	
R128	1-208-453-61	RES,CHIP 4.7K 2% 1/10W	
R129	1-208-453-61	RES,CHIP 4.7K 2% 1/10W	
R130	1-216-238-00	RES,CHIP 47K 2% 1/8W	
R131	1-216-238-00	RES,CHIP 47K 2% 1/8W	
R132	1-216-635-11	METAL CHIP 220 0.5% 1/10W	
R133	1-216-635-11	METAL CHIP 220 0.5% 1/10W	
R134	1-208-449-61	RES,CHIP 3.3K 2% 1/10W	
R135	1-208-437-61	RES,CHIP 1K 2% 1/10W	
R136	1-249-943-11	CARBON 6.8K 5% 1/4W	
R137	1-249-576-11	CARBON 10K 5% 1/4W	
R138	1-249-576-11	CARBON 10K 5% 1/4W	
R139	1-249-955-11	CARBON 22K 5% 1/4W	
R140	1-249-955-11	CARBON 22K 5% 1/4W	
R141	1-208-534-61	RES,CHIP 100K 2% 1/10W	
R142	1-208-534-61	RES,CHIP 100K 2% 1/10W	
R143	1-211-960-11	RES,CHIP 22 2% 1/10W	
R144	1-211-960-11	RES,CHIP 22 2% 1/10W	

Ref. No.	Part No.	Description			Remark
R145	1-208-437-61	RES,CHIP	1K	2%	1/10W
R146	1-208-437-61	RES,CHIP	1K	2%	1/10W
R148	1-208-789-11	RES,CHIP	2K	2%	1/10W
R149	1-208-462-61	RES,CHIP	10K	2%	1/10W
R150	1-208-462-61	RES,CHIP	10K	2%	1/10W
R151	1-208-462-61	RES,CHIP	10K	2%	1/10W
R152	1-208-462-61	RES,CHIP	10K	2%	1/10W
R154	1-242-799-11	METAL BOARD	60M/60M		5W F
R155	1-208-437-61	RES,CHIP	1K	2%	1/10W
R156	1-208-437-61	RES,CHIP	1K	2%	1/10W
R158	1-208-789-11	RES,CHIP	2K	2%	1/10W
R159	1-208-526-61	RES,CHIP	47K	2%	1/10W
R160	1-208-526-61	RES,CHIP	47K	2%	1/10W
R161	1-242-799-11	METAL BOARD	60M/60M		5W F
R163	1-208-550-61	RES,CHIP	470K	2%	1/10W
R164	1-215-860-11	METAL OXIDE	33	5%	1WF
R165	1-215-860-11	METAL OXIDE	33	5%	1W F
R166	1-215-860-11	METAL OXIDE	33	5%	1W F
R167	1-208-462-61	RES,CHIP	10K	2%	1/10W
R201	1-208-518-61	RES,CHIP	22K	2%	1/10W
R202	1-208-518-61	RES,CHIP	22K	2%	1/10W
R203	1-208-291-11	RES,CHIP	4.7M	5%	1/10W
R204	1-208-518-61	RES,CHIP	22K	2%	1/10W
R205	1-208-518-61	RES,CHIP	22K	2%	1/10W
R206	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R207	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R218	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R219	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R220	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R221	1-208-789-11	RES,CHIP	2K	2%	1/10W
R222	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R223	1-208-510-61	RES,CHIP	10K	2%	1/8W
R224	1-208-510-61	RES,CHIP	10K	2%	1/8W
R225	1-208-462-61	RES,CHIP	10K	2%	1/10W
R226	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R227	1-249-568-11	CARBON	4.7K	5%	1/4W
R228	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R229	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R230	1-216-238-00	RES,CHIP	47K	2%	1/8W
R231	1-216-238-00	RES,CHIP	47K	2%	1/8W
R232	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R233	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R234	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R235	1-208-437-61	RES,CHIP	1K	2%	1/10W
R236	1-249-943-11	CARBON	6.8K	5%	1/4W
R237	1-249-576-11	CARBON	10K	5%	1/4W
R238	1-249-576-11	CARBON	10K	5%	1/4W
R239	1-249-955-11	CARBON	22K	5%	1/4W
R240	1-249-955-11	CARBON	22K	5%	1/4W
R241	1-208-534-61	RES,CHIP	100K	2%	1/10W
R242	1-208-534-61	RES,CHIP	100K	2%	1/10W
R243	1-211-960-11	RES,CHIP	22	2%	1/10W
R244	1-211-960-11	RES,CHIP	22	2%	1/10W
R245	1-208-437-61	RES,CHIP	1K	2%	1/10W
R246	1-208-437-61	RES,CHIP	1K	2%	1/10W
R248	1-208-789-11	RES,CHIP	2K	2%	1/10W

Ref. No.	Part No.	Description			Remark
R249	1-208-462-61	RES,CHIP	10K	2%	1/10W
R250	1-208-462-61	RES,CHIP	10K	2%	1/10W
R251	1-208-462-61	RES,CHIP	10K	2%	1/10W
R252	1-208-462-61	RES,CHIP	10K	2%	1/10W
R254	1-242-799-11	METAL BOARD	60M/60M		5W F
R255	1-208-437-61	RES,CHIP	1K	2%	1/10W
R256	1-208-437-61	RES,CHIP	1K	2%	1/10W
R258	1-208-789-11	RES,CHIP	2K	2%	1/10W
R259	1-208-526-61	RES,CHIP	47K	2%	1/10W
R260	1-208-526-61	RES,CHIP	47K	2%	1/10W
R261	1-242-799-11	METAL BOARD	60M/60M		5W F
R263	1-208-550-61	RES,CHIP	470K	2%	1/10W
R264	1-215-860-11	METAL OXIDE	33	5%	1W F
R265	1-215-860-11	METAL OXIDE	33	5%	1W F
R266	1-215-860-11	METAL OXIDE	33	5%	1W F
R267	1-208-462-61	RES,CHIP	10K	2%	1/10W
R828	1-208-462-61	RES,CHIP	10K	2%	1/10W
R829	1-208-462-61	RES,CHIP	10K	2%	1/10W
R830	1-208-462-61	RES,CHIP	10K	2%	1/10W
R831	1-208-462-61	RES,CHIP	10K	2%	1/10W
R832	1-216-121-00	RES,CHIP	1M	5%	1/10W
R861	1-208-441-61	RES,CHIP	1.5K	2%	1/10W
R862	1-208-539-11	RES,CHIP	160K	2%	1/10W
R863	1-208-462-61	RES,CHIP	10K	2%	1/10W
R864	1-208-462-61	RES,CHIP	10K	2%	1/10W
R865	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R866	1-208-462-61	RES,CHIP	10K	2%	1/10W
R867	1-208-539-11	RES,CHIP	160K	2%	1/10W
R868	1-216-121-00	RES,CHIP	1M	5%	1/10W
R869	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R870	1-208-486-61	RES,CHIP	1K	2%	1/8W
R871	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R872	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R873	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R874	1-208-462-61	RES,CHIP	10K	2%	1/10W
R875	1-208-462-61	RES,CHIP	10K	2%	1/10W
R941	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R943	1-208-486-61	RES,CHIP	1K	2%	1/8W
R944	1-208-486-61	RES,CHIP	1K	2%	1/8W
R945	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R946	1-216-603-11	METAL CHIP	220	0.5%	1/8W
R947	1-208-470-61	METAL CHIP	220		1/8W
R948	1-208-470-61	METAL CHIP	220		1/8W
		< RELAY >			
RY801	1-755-353-11	RELAY			
		< SWITCH >			
S802	1-692-721-11	SWITCH, SLIDE (DIRECT)			
S805	1-771-802-11	SWITCH (TEST TONE)			
		< TRANSFORMER >			
T902	1-435-149-11	TRANSFORMER, DC-DC CONVERTER			
		< THERMISTOR >			
TH803	1-809-664-51	THERMISTOR, POSITIVE			

AMPLIFIER FILTER LED POWER

Ref. No.	Part No.	Description			Remark
		< VARIABLE RESISTOR >			
VR101	1-241-760-11	RES, ADJ, CERMET 470 (IDLING)			
VR201	1-241-760-11	RES, ADJ, CERMET 470 (IDLING)			
VR801	1-225-648-11	RES, VAR 5K/5K (LEVEL)			
VR802	1-225-647-11	RES, VAR 20K/20K/20K/20K (BOOST/LOW CUT FREQ)			
VR803	1-225-648-11	RES, VAR 5K/5K (BOOST LEVEL)			
**********					
*	1-675-243-11	FILTER (2CH) BOARD **********			
		< CAPACITOR >			
C107	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C108	1-136-167-00	FILM	0.15uF	5%	50V
C109	1-136-167-00	FILM	0.15uF	5%	50V
C110	1-126-008-51	ELECT	47uF	20%	16V
C111	1-136-165-00	FILM	0.1uF	5%	50V
C112	1-126-008-51	ELECT	47uF	20%	16V
C207	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C208	1-136-167-00	FILM	0.15uF	5%	50V
C209	1-136-167-00	FILM	0.15uF	5%	50V
C210	1-126-008-51	ELECT	47uF	20%	16V
C211	1-136-165-00	FILM	0.1uF	5%	50V
C212	1-126-008-51	ELECT	47uF	20%	16V
		< JACK >			
CNJ806	1-793-622-11	CONNECTOR, BOARD TO BOARD 12P			
		< IC >			
IC101	8-759-711-82	IC NJM4580E(T1)			
IC201	8-759-711-82	IC NJM4580E(T1)			
IC803	8-759-711-82	IC NJM4580E(T1)			
		< RESISTOR >			
R108	1-208-462-61	RES,CHIP	10K	2%	1/10W
R109	1-208-518-61	RES,CHIP	22K	2%	1/10W
R110	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R111	1-208-462-61	RES,CHIP	10K	2%	1/10W
R112	1-208-462-61	RES,CHIP	10K	2%	1/10W
R113	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R114	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R116	1-208-462-61	RES,CHIP	10K	2%	1/10W
R117	1-208-462-61	RES,CHIP	10K	2%	1/10W
R208	1-208-462-61	RES,CHIP	10K	2%	1/10W
R209	1-208-518-61	RES,CHIP	22K	2%	1/10W
R210	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R211	1-208-462-61	RES,CHIP	10K	2%	1/10W
R212	1-208-462-61	RES,CHIP	10K	2%	1/10W
R213	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R214	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R216	1-208-462-61	RES,CHIP	10K	2%	1/10W
R217	1-208-462-61	RES,CHIP	10K	2%	1/10W
R856	1-220-259-11	RES,CHIP	150	5%	1/4W
		< SWITCH >			
S803	1-762-191-11	SWITCH, SLIDE (FILTER)			
S804	1-692-721-11	SWITCH, SLIDE (NFB)			
		< VARIABLE RESISTOR >			
VR804	1-225-921-11	RES, VAR 20K/20K/20K/20K			
**********					
*	1-675-242-11	LED (2CH) BOARD **********			
		< DIODE >			
D841	8-719-076-62	DIODE GL-5ED60 (THERMAL)			
D842	8-719-076-62	DIODE GL-5ED60 (OFF SET)			
D843	8-719-076-62	DIODE GL-5ED60 (OVER CURRENT)			
D844	8-719-076-62	DIODE GL-5ED60 (HI-CURRENT)			
D845	8-719-076-62	DIODE GL-5ED60 (HI-VOLTAGE)			
		< TRANSISTOR >			
Q841	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q842	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q843	8-729-230-49	TRANSISTOR	2SC2712-Y		
		< RESISTOR >			
R841	1-216-194-00	METAL CHIP	680	5%	1/8W
R842	1-216-194-00	METAL CHIP	680	5%	1/8W
R843	1-216-190-00	RES,CHIP	470	2%	1/8W
R844	1-216-190-00	RES,CHIP	470	2%	1/8W
R845	1-216-057-61	RES,CHIP	2.2K	5%	1/10W
R846	1-216-194-00	METAL CHIP	680	5%	1/8W
R847	1-216-194-00	METAL CHIP	680	5%	1/8W
R848	1-216-190-00	RES,CHIP	470	2%	1/8W
R849	1-216-190-00	RES,CHIP	470	2%	1/8W
R850	1-216-057-61	RES,CHIP	2.2K	5%	1/10W
R851	1-216-194-00	METAL CHIP	680	5%	1/8W
R852	1-216-194-00	METAL CHIP	680	5%	1/8W
R853	1-216-190-00	RES,CHIP	470	2%	1/8W
R854	1-216-190-00	RES,CHIP	470	2%	1/8W
R855	1-216-057-61	RES,CHIP	2.2K	5%	1/10W
**********					
*	A-3317-926-A	POWER BOARD, COMPLETE **********			
		< CAPACITOR >			
C801	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C802	1-107-715-11	ELECT	22uF	20%	16V
C803	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C804	1-126-006-11	ELECT	22uF	20%	16V
C805	1-126-006-11	ELECT	22uF	20%	16V
C806	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C901	1-136-173-00	FILM	0.47uF	5%	50V
C902	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C903	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C904	1-126-009-81	ELECT	100uF	20%	16V
C905	1-126-006-11	ELECT	22uF	20%	16V
C906	1-124-993-11	ELECT	47uF	20%	10V
C907	1-107-715-11	ELECT	22uF	20%	16V
C908	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C909	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V

Ref. No.	Part No.	Description			Remark
C910	1-131-731-11	ELECT	2200uF		35V
C911	1-131-731-11	ELECT	2200uF		35V
C912	1-131-731-11	ELECT	2200uF		35V
C913	1-131-731-11	ELECT	2200uF		35V
C915	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C918	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C919	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C920	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C921	1-165-389-11	CERAMIC CHIP	0.001uF	10%	50V
		< CONNECTOR >			
CN802	1-694-618-11	TERMINAL BOARD 2P (+12V, GND)			
		< JACK >			
CNJ801	1-793-279-11	CONNECTOR 1P (REMOTE)			
		< CONNECTOR >			
* CNP803	1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P			
CNP804	1-564-512-11	PLUG, CONNECTOR 9P			
		< DIODE >			
D801	8-719-801-78	DIODE 1SS184-TE85L			
D802	8-719-801-78	DIODE 1SS184-TE85L			
D803	8-719-801-78	DIODE 1SS184-TE85L			
D804	8-719-025-50	DIODE 02CZ16-TE85L			
D805	8-719-801-78	DIODE 1SS184-TE85L			
D806	8-719-801-78	DIODE 1SS184-TE85L			
D901	8-719-025-50	DIODE 02CZ16-TE85L			
D902	8-719-025-33	DIODE 02CZ6.2-TE85L			
D903	8-719-076-61	DIODE FRH20A15			
D904	8-719-076-60	DIODE FCH20A15			
D905	8-719-025-49	DIODE 02CZ15-TE85L			
D906	8-719-160-91	DIODE RD36FB3			
		< FUSE >			
F901	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE) (25A)			
F902	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE) (25A)			
		< IC >			
IC901	8-759-144-88	IC uPC494GS-T1			
IC902	8-719-156-72	PHOTO COUPLER PS2501-1-K			
IC903	8-719-156-72	PHOTO COUPLER PS2501-1-K			
		< COIL >			
L902	1-410-396-71	INDUCTOR	0.45uH		
		< PILOT LAMP >			
PL901	1-518-540-00	LAMP, PILOT			
		< TRANSISTOR >			
Q801	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q802	8-729-216-21	TRANSISTOR	2SA1162-Y		
Q803	8-729-216-21	TRANSISTOR	2SA1162-Y		
Q804	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q805	8-729-216-21	TRANSISTOR	2SA1162-Y		

Ref. No.	Part No.	Description			Remark
Q806	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q807	8-729-216-21	TRANSISTOR	2SA1162-Y		
Q808	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q809	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q810	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q811	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q901	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q902	8-729-230-49	TRANSISTOR	2SC2712-Y		
Q903	8-729-216-21	TRANSISTOR	2SA1162-Y		
Q904	8-729-046-13	TRANSISTOR	2SB1243-QR-TV2		
Q905	8-729-030-89	TRANSISTOR	2SA1680-TPE6		
Q906	8-729-030-89	TRANSISTOR	2SA1680-TPE6		
Q907	8-729-030-90	TRANSISTOR	2SC4408-TPE6		
Q908	8-729-030-90	TRANSISTOR	2SC4408-TPE6		
Q909	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q910	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q911	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q912	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q913	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q914	8-729-035-83	TRANSISTOR	MTP75N06HD		
Q915	8-729-230-49	TRANSISTOR	2SC2712-Y		
		< RESISTOR >			
R801	1-216-429-11	METAL CHIP	470	0.5%	1/10W
R802	1-208-534-61	RES,CHIP	100K	2%	1/10W
R803	1-208-436-61	RES,CHIP	910	2%	1/10W
R804	1-208-437-61	RES,CHIP	1K	2%	1/10W
R805	1-208-518-61	RES,CHIP	22K	2%	1/10W
R806	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R807	1-218-760-11	RES,CHIP	220K	2%	1/10W
R808	1-208-462-61	RES,CHIP	10K	2%	1/10W
R809	1-208-462-61	RES,CHIP	10K	2%	1/10W
R810	1-208-437-61	RES,CHIP	1K	2%	1/10W
R811	1-208-510-61	RES,CHIP	10K	2%	1/8W
R812	1-208-826-11	RES,CHIP	68K	2%	1/10W
R813	1-216-234-00	RES,CHIP	33K	2%	1/8W
R814	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R815	1-208-526-61	RES,CHIP	47K	2%	1/10W
R816	1-208-462-61	RES,CHIP	10K	2%	1/10W
R817	1-208-462-61	RES,CHIP	10K	2%	1/10W
R818	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R819	1-208-462-61	RES,CHIP	10K	2%	1/10W
R820	1-208-462-61	RES,CHIP	10K	2%	1/10W
R821	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R822	1-208-462-61	RES,CHIP	10K	2%	1/10W
R823	1-208-462-61	RES,CHIP	10K	2%	1/10W
R824	1-208-462-61	RES,CHIP	10K	2%	1/10W
R825	1-208-462-61	RES,CHIP	10K	2%	1/10W
R826	1-208-462-61	RES,CHIP	10K	2%	1/10W
R827	1-208-462-61	RES,CHIP	10K	2%	1/10W
R857	1-216-190-00	RES,CHIP	470	2%	1/8W
R858	1-216-190-00	RES,CHIP	470	2%	1/8W
R859	1-216-190-00	RES,CHIP	470	2%	1/8W
R860	1-216-190-00	RES,CHIP	470	2%	1/8W
R901	1-208-510-61	RES,CHIP	10K	2%	1/8W
R902	1-249-568-11	CARBON	4.7K	5%	1/4W

POWER

Ref. No.	Part No.	Description			Remark
R903	1-208-474-61	RES,CHIP	330	2%	1/8W
R904	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R905	1-216-202-00	RES,CHIP	1.5K	2%	1/8W
R906	1-216-210-00	RES,CHIP	3.3K	2%	1/8W
R907	1-218-760-11	RES,CHIP	220K	2%	1/10W
R908	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R909	1-208-462-61	RES,CHIP	10K	2%	1/10W
R910	1-208-466-61	RES,CHIP	15K	2%	1/10W
R911	1-216-677-11	METAL CHIP	12K	0.5%	1/10W
R912	1-208-462-61	RES,CHIP	10K	2%	1/10W
R913	1-208-437-61	RES,CHIP	1K	2%	1/10W
R914	1-208-437-61	RES,CHIP	1K	2%	1/10W
R915	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R916	1-216-631-11	METAL CHIP	150	0.5%	1/10W
R917	1-215-886-11	METAL OXIDE	100	5%	2W F
R918	1-215-886-11	METAL OXIDE	100	5%	2W F
R919	1-208-437-61	RES,CHIP	1K	2%	1/10W
R920	1-208-437-61	RES,CHIP	1K	2%	1/10W
R921	1-216-182-00	RES,CHIP	220	2%	1/8W
R922	1-216-182-00	RES,CHIP	220	2%	1/8W
R923	1-208-437-61	RES,CHIP	1K	2%	1/10W
R924	1-208-437-61	RES,CHIP	1K	2%	1/10W
R925	1-259-033-51	CARBON	1	5%	1/4W
R926	1-259-033-51	CARBON	1	5%	1/4W
R927	1-259-033-51	CARBON	1	5%	1/4W
R928	1-259-033-51	CARBON	1	5%	1/4W
R929	1-249-033-51	CARBON	1	5%	1/4W
R930	1-220-852-11	CARBON	2.2	5%	1/4W
R931	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R932	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
		< SWITCH >			
S801	1-571-658-11	SWITCH, SLIDE (MODE, HI-C/HI-V)			
		< TRANSFORMER >			
T901	1-435-148-11	TRANSFORMER, DC-DC CONVERTER			
		< THERMISTOR >			
TH801	1-810-506-11	THERMISTOR NTH5G39B223K01			
TH802	1-810-506-11	THERMISTOR NTH5G39B223K01			
TH901	1-810-506-11	THERMISTOR NTH5G39B223K01			

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MISCELLANEOUS
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F901	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE) (25A)
F902	1-576-256-11	FUSE (BLADE TYPE) (AUTO FUSE) (25A)

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ACCESSORIES
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	3-867-640-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH)
	3-867-640-21	MANUAL, INSTRUCTION (GERMAN,ITALIAN)(AEP,UK,E)
	3-867-640-31	MANUAL, INSTRUCTION (SPANISH,PORTUGUESE)(AEP,UK,E)
	3-867-640-41	MANUAL, INSTRUCTION (DUTCH,SWEDISH) (AEP,UK,E)
	3-867-640-51	MANUAL, INSTRUCTION (RUSSIAN) (AEP,UK,E)

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HARDWARE LIST
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#1	7-685-546-19	SCREW (+BTP3X8) TYPE2 N-S
#2	7-685-548-19	SCREW (+BTP3X12) TYPE2 N-S
#3	7-685-145-19	SCREW (+P3X6) TYPE2 NON-SLIT
#4	7-685-147-11	SCREW (+P3X10) TYPE2 NON-SLIT
#5	7-685-146-19	SCREW (+P3X8) TYPE2 NON-SLIT
#6	7-685-647-79	SCREW (+BVTP3X10) TYPE2 IT-3
#7	7-685-106-11	SCREW (+P2X10) TYPE2 NON-SLIT
#8	7-685-649-79	SCREW (+BVTP3X14) TYPE2 IT-3
#9	7-685-168-11	SCREW (+P4X40) TYPE2 NON-SLIT
#10	7-685-149-11	SCREW (+P3X14) TYPE2 NON-SLIT

Sony Corporation
Mobile Electronics Company

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